operatively connected to said one or more memories, said method comprising the steps of:

storing at each of said plurality of intermediate transmission stations data of predetermined capacities;

transmitting programming to said plurality of intermediate transmission stations;

transmitting to said plurality of intermediate transmission stations data that identify said programming or a subject matter contained in said programming;

controlling each of said plurality of intermediate transmission stations to receive and store said programming for a period of time;

controlling said switch at each intermediate transmission station to communicate said received and stored programming in accordance with said stored data of said predetermined capacities; and

controlling each of said plurality of intermediate transmission stations to transmit said received and stored programming to at least one subscriber station.

32. The method of claim 31, wherein each switch includes a plurality of inputs or a plurality of outputs and said predetermined characteristics specify at least one source of input to or device that receives output from said switch.

33. (New Claim) The method of claim 31, further comprising the step of programming a computer to control at least one intermediate transmission station according to said stored predetermined characteristics.

34. (New Claim) The method of claim 33, wherein said at least one intermediate transmission station stores information that specifies a version of said computer, said method further comprising the steps of:

transmitting operating system instructions from said one or more programming origination stations; and

programming said computer with said operating system instructions.

35. (New Claim) The method of claim 31, wherein each of said plurality of intermediate transmission stations transmits said programming to a subscriber in a broadcast or cablecast programming channel transmission, said method further comprising the steps of:

receiving from said one or more programming origination stations a signal containing some other programming of said broadcast or cablecast programming channel transmission; and

controlling each switch at said plurality of intermediate transmission stations to communicate said other programming from a receiver to a transmitter.

36. (New Claim) The method of claim 35, further comprising the steps of:

communicating a schedule to at least one controller; and

controlling at least one intermediate transmission station to communicate said programming according to said schedule.

37. (New Claim) The method of claim 31, wherein said switch at each of said plurality of intermediate transmission stations comprises one or more of a digital switch and a matrix switch.

Sub H-9 G1 Cont.

38. (~~New Claim) A method~~ of communicating programming to subscribers in a network, said network including one or more programming origination stations, a plurality of intermediate transmission stations, and a plurality of subscriber stations, each intermediate transmission station receiving programming from said origination stations, each intermediate transmission stations including one or more selective communications devices, said method comprising the steps of:

(1) receiving programming at said one or more programming origination stations;

(2) receiving, at said one or more programming origination stations, data identifying said programming or a subject matter contained in said programming, said data effective to:

(a) effect at least a first of said plurality of intermediate transmission stations to receive and store said programming for a period of time and retransmit said programming to at least one of said plurality of subscriber stations, wherein said one or more selective communications devices at said at least a first intermediate transmission station are controlled based on data of one or more predetermined transmission station capacities; or

(b) effect at least a second of said plurality of intermediate transmission stations to receive and store said programming for a period of time and retransmit said programming to at least one of said plurality

of subscriber station, wherein said one or more selective communications devices at said at least a second of said plurality of intermediate transmission stations are controlled based on data of one or more predetermined transmission station capacities; and

(3) transmitting said programming and said data that identify said programming or a subject matter contained in said programming.

39. (New Claim) The method of claim 38, wherein said one or more selective communications devices at said at least a first intermediate transmission station comprise a switch which a plurality of outputs and said predetermined transmission station capacities specify a plurality of memories and/or transmitters operatively connected to said plurality of outputs.

40. (New Claim) The method of claim 38, wherein said one or more selective communications devices at said at least a second intermediate transmission station comprise a switch which a plurality of inputs and outputs and said predetermined receiver station capacities specify a plurality of memories and/or receivers operatively connected to said plurality of inputs and outputs.

41. (New Claim) The method of claim 38, wherein said one or more selective communications devices at at least one of said plurality of intermediate transmission stations comprise a plurality of storage locations, said method further comprising the step of embedding said data in a signal containing said programming before transmitting said programming to said at least one of said plurality of intermediate transmission stations.

42. (New Claim) The method of claim 38, wherein said data that identify said programming comprise a schedule, said method further comprising the step of transmitting at least some of said schedule to said at least a second of said plurality of intermediate transmission stations before transmitting all of said programming.

43. (New Claim) The method of claim 38, wherein information stored at least one of said plurality of intermediate transmission stations specify a type or version of an apparatus, said method further comprising the step of transmitting operating instructions which operate at said at least one intermediate transmission station to program a processor or computer that controls said apparatus.

44. (New Claim) An intermediate transmission station, comprising:

one or more first receiver means for receiving from one or more remote programming origination stations programming and data that identify said programming or a subject matter contained in said programming;

one or more first storage means for storing data of predetermined capacities;

one or more first switch means operatively connected to said one or more first receiver means for communicating said programming;

one or more second storage means operatively connected to at least one of said one or more first receiver means and said one or more first switch means for storing said programming;

one or more transmitter means operatively connected to at least one of said one or more first switch means and said one or more second storage means to transmit said programming; and

one or more first control means for controlling said one or more first switch means based on said data of one or more predetermined capacities.

G1 Cont.

45. (New Claim) The intermediate transmission station of claim 44, further comprising one or more second receiver means operatively connected to said one or more first switch means for receiving one or more broadcast or cablecast programming channels from said one or more remote programming origination stations.

46. (New Claim) The intermediate transmission station of claim 45, further comprising one or more second switch means operatively connected to said one or more second receiver means for communicating said programming to said one or more first receiver means.

47. (New Claim) The intermediate transmission station of claim 45, further comprising one or more first detector means operatively connected to at least one of said first and second receiver means for detecting said data.

48. (New Claim) The intermediate transmission station of claim 45, further comprising one or more second detector means operatively connected to at least one of said first and second receiver means for detecting predetermined automatic processing information.

49. (New Claim) The intermediate transmission station of claim 44, wherein said one or more first switch means are operatively connected to a first of said one or more second storage means, said station further comprising:

one or more second switch means operatively connected to at least a second of said one or more second storage means;

one or more second control means operatively connected to said one or more second switch means for controlling said one or more second switch means to communicate said programming to said at least a second storage means.

50. (New Claim) The intermediate transmission station of claim 49, further comprising one or more third control means operatively connected to said at least a second storage means for controlling said at least a second storage means to store or communicate said programming.

51. (New Claim) The intermediate transmission station of claim 50, further comprising one or more detector means operatively connected to one or more of said first, second, and third control means for detecting automatic processing information.

52. (New Claim) A method of communicating programming to subscribers in a network, said network including one or more programming origination stations, a plurality of intermediate transmission stations, and a plurality of subscriber stations, each intermediate transmission station receiving programming from one of said origination stations and retransmitting said received programming to at least one of said subscriber stations, said method comprising the steps of:

storing at each of said plurality of intermediate transmission stations predetermined intermediate transmission station capacities;

transmitting predetermined intermediate transmission station automatic processing information to said plurality of intermediate transmitter stations;

transmitting programming to said plurality of intermediate transmission stations;

transmitting to said plurality of intermediate transmission stations data that identify said programming or a subject matter contained in said programming;

controlling each of said plurality of intermediate transmission stations to receive and store said programming for a period of time; and

controlling each of said plurality of intermediate transmission stations to transmit said received and stored programming to at least one subscriber station; wherein each of said plurality of intermediate transmission stations is controlled based on said predetermined intermediate transmission station capacities and said predetermined intermediate transmission station automatic processing information.

53. (New Claim) The method of claim 52, wherein at least a portion of said predetermined intermediate transmission station capacities and said predetermined intermediate transmission station automatic processing information is processed according to a schedule, said method further comprising the step of transmitting a signal which operates at least one of said intermediate transmission stations to communicate said schedule to one of a computer and a memory.

54. (New Claim) The method of claim 52, wherein at least a portion of said predetermined capacities applies to a programmable device and said predetermined intermediate transmission station automatic processing information comprise operating instructions which program said device.

Sub H-13 Cont.

55. ~~(New Claim)~~ A method of communicating programming to a subscriber in a network, said network including at least one programming origination station, an intermediate transmission station, and at least one subscriber station, said intermediate transmission station receiving said programming from said at least one programming origination station and transmitting said programming to said at least one subscriber station, said method comprising the steps of:

receiving a plurality of units of said programming at said intermediate transmission station;

receiving a control signal at said intermediate transmission station, said control signal containing information that designates for delayed transmission a portion of said programming;

detecting said control signal at said intermediate transmission station and passing said control signal to a computer; and

controlling said intermediate transmission station based on said control signal to:

select only a portion of said plurality of units of said programming;

communicate said selected only a portion of said plurality of units of said programming to a storage location;

store said selected only a portion of said plurality of units of said programming at said storage location; ~~and subsequently~~

transmit said selected only a portion of said plurality of units of said programming to said at least one subscriber station.

56. (New Claim) The method of claim 55, wherein said control signal is effective at said intermediate transmission station to instruct a selective transmission device.

57. (New Claim) The method of claim 55, wherein said control signal includes a schedule.

58. (New Claim) The method of claim 55, further comprising the step of programming said computer to control said intermediate transmission station according to predetermined characteristics of said intermediate transmission station.

59. (New Claim) The method of claim 55, further comprising the step of storing predetermined characteristics that specify one of a source of input to a selective transmission device and a device that receives output from a selective transmission device.

60. (New Claim) The method of claim 55, wherein said intermediate transmission station is controlled on a basis of predetermined characteristics, said method further comprising the step of storing said predetermined characteristics.

61. (New Claim) A method of communicating programming to a subscriber in a network, said network including at least one programming

origination station, an intermediate transmission station, and at least one subscriber station, said intermediate transmission station receiving said programming from said at least one programming origination station and transmitting said programming to said at least one subscriber station, comprising the steps of:

receiving a plurality of units of said programming;

receiving a control signal containing information that designates for storage for delayed transmission a portion of said programming, wherein said control signal has effect at said intermediate transmission station to select only a portion of said plurality of units of said programming and subsequently transmit said selected only a portion of said plurality of units of said programming to said at least one subscriber station; and

transmitting said plurality of units of said programming and said control signal.

62. (New Claim) An intermediate transmission station, comprising:

receiving means for receiving a plurality of units of programming and receiving a control signal, said control signal containing information that designates for delayed transmission a portion of said plurality of units of programming;

storage means for storing at least a portion of said plurality of units of programming;

a transmitter; and

control means for detecting said control signal, selecting only a portion of said plurality of units of programming, controlling communication of said selected only a portion to said storage means, controlling said storage means to

store said selected only a portion in said storage means, and controlling said transmitter to subsequently transmit said selected only a portion to at least one subscriber station.

63. (New Claim) A method of communicating programming to subscribers in a network, said network including at least one programming origination station, a plurality of intermediate transmission stations, and a plurality of subscriber stations, said plurality of intermediate transmission stations receiving programming from said at least one programming origination station and retransmitting said received programming, said method comprising the steps of:

storing a plurality of programming units in said network;

scheduling at least a first time for transmitting at least a first of said stored programming units from at least a first of said plurality of intermediate transmission stations;

controlling said network, based on said step of scheduling, to organize said stored plurality of programming units for transmission;

controlling said at least said first of said plurality of intermediate transmission stations to transmit said at least said first of said stored plurality of programming units to at least one of said subscriber stations at said at least said first scheduled time from said step of scheduling.

64. (New Claim) The method of claim 63, wherein said step of controlling said network to organize said stored plurality of programming units for transmission includes:

selecting a storage location from which to communicate said at least said first of said plurality of programming units to a transmitter;

communicating said at least said first of said plurality of programming units to said selected storage location; and

storing said at least said first of said plurality of programming units at said selected storage location.

65. (New Claim) The method of claim 64, further comprising the step of performing one of organizing and assembling a second of said plurality of programming units to be transmitted with said at least said first of said plurality of programming units.

66. (New Claim) The method of claim 65, wherein said step of performing one of organizing and assembling includes storing said second of said plurality of programming units at said storage location immediately before said at least said first of said plurality of programming units.

67. (New Claim) The method of claim 65, wherein said step of performing one of organizing and assembling includes storing said second of said plurality of programming units at said storage location immediately after said at least said first of said plurality of programming units.

68. (New Claim) The method of claim 64, wherein said at least said first of said plurality of programming units is received in said at least one programming origination station and said at least said first of said plurality of intermediate transmission stations is adapted to generate information to be

communicated with said at least said first of said plurality of programming units, said method further comprising the steps of:

communicating at least one programming signal to said at least said first of said plurality of intermediate transmission stations, said at least one programming signal including said at least said first of said plurality of programming units; and

transmitting from said at least one programming origination station at least one instruct signal which operates at a receiver station to perform at least one of generating and clearing, said receiver station being one of said plurality of intermediate transmission stations and said plurality of subscriber stations.

69. (New Claim) The method of claim 68, wherein said at least said first of said plurality of programming units includes only part of a processor code, said method further comprising the steps of:

generating a balance of said processor code;

incorporating said balance of said processor code into a signal containing at least some of said at least said first of said plurality of programming units; and

delivering said signal and said processor code to at least one of a transmitter and a device to be controlled.

70. (New Claim) The method of claim 68, wherein said at least said first of said plurality of programming units is of a duration, only some of said duration containing a time interval of specific relevance, said method further comprising the step of transmitting, from said at least one programming origination station, data which enables said receiver station to generate receiver specific information to be outputted during said interval of specific relevance.

71. (New Claim) The method of claim 70, wherein said receiver station is one of said plurality of intermediate transmission stations and said data includes at least one of formula information, item information, and a second time.

72. (New Claim) The method of claim 70, wherein said receiver station is one of said plurality of subscriber stations and said data includes at least one of news and transaction information.

73. (New Claim) The method of claim 63, wherein said network includes a first selective transfer device located in one of: (1) said at least said first of said plurality of intermediate transmission stations and (2) said at least one of said plurality of subscriber stations, and wherein said step of controlling said network to organize said stored plurality of programming units for transmission includes:

controlling a second selective transfer device in said network to communicate said at least said first of said plurality of programming units to said first selective transfer device; and

controlling said first selective transfer device to store said at least said first of said plurality of programming units.

74. (New Claim) The method of claim 73, wherein said first selective transfer device includes a memory.

75. (New Claim) The method of claim 73, wherein said first selective transfer device includes a switch.

76. (New Claim) The method of claim 73, wherein said first selective transfer device includes a signal generator.

77. (New Claim) The method of claim 73, wherein said at least said first of said plurality of programming units is received in said at least one programming origination station, said method further comprising the step of transmitting a first storage control signal, said first storage control signal operative in said network to perform at least one of (1) controlling said first selective transfer device to output said at least said first of said plurality of programming units, and (2) controlling said second selective transfer device to store said at least said first of said plurality of programming units.

78. (New Claim) The method of claim 77, wherein said plurality of subscriber stations includes said first selective transfer device, said method further comprising the step of receiving said storage control signal at said at least one programming origination station.

79. (New Claim) The method of claim 77, wherein at least one of said at least said first of said plurality of intermediate transmission stations and said at least one of said plurality of subscriber stations selects said at least said first of said plurality of programming units based on an identifier, said method further comprises the step of transmitting code which enables said at least said first of said plurality of intermediate transmission stations and said at least one of said

plurality of subscriber stations to identify said at least said first of said plurality of programming units.

80. (New Claim) The method of claim 79, wherein said code enables said at least said first of said plurality of intermediate transmission stations and said at least one of said plurality of subscriber stations to decrypt said first programming unit.

Sub H-16

81. ~~(New Claim) The method of claim 63, further comprising the step of communicating a schedule to said plurality of intermediate transmission stations, said schedule containing said at least said first scheduled time.~~

82. (New Claim) The method of claim 63, further comprising the step of programming a computer to control at least one of said plurality of intermediate transmission stations according to at least one predetermined characteristic of said at least one of said plurality of intermediate transmission stations .

83. (New Claim) The method of claim 63, wherein at least one of said plurality of intermediate transmission stations includes a selective transfer device with one of a plurality of inputs and a plurality of outputs, said method further comprising the step of storing at least one predetermined characteristic that specifies at least one of: (1) at least one source of input to said selective transfer device, and (2) at least one device that receives output from said selective transfer device.

84. (New Claim) The method of claim 63, wherein at least one of said plurality of intermediate transmission stations is controlled on the basis of at least one predetermined characteristic of said at least one of said plurality of intermediate transmission stations , said method further comprising the step of storing said at least one predetermined characteristic of said at least one of said plurality of intermediate transmission stations .

85. (New Claim) The method of claim 63, ~~wherein said~~ plurality of programming units are received in said at least one programming origination station, said method further comprising the steps of:

communicating a programming signal to said at least said first of said plurality of intermediate transmission stations, said programming signal including said plurality of programming units;

scheduling a plurality of second times, each of said second times being one of (1) a second time for transmitting said at least said first of said plurality of programming units, and (2) a time for transmitting a second of said plurality of programming units; and

communicating at least one schedule to said at least said first of said plurality of intermediate transmission stations, said schedule including said at least ~~said first time~~ and said plurality of second times.

86. (New Claim) The method of claim 85, wherein said at least one schedule serves as a basis for selecting said at least said first of said plurality of programming units at said at least said first of said plurality of intermediate transmission stations and said step of communicating said at least one schedule is performed before said at least said first of said plurality of intermediate

transmission stations transmits said at least said first of said plurality of programming units at said at least said first time.

87. (New Claim) The method of claim 85, further comprising the step of selecting, in said at least said first of said plurality of intermediate transmission stations, a subset of said plurality of programming units.

88. (New Claim) The method of claim 13, wherein said selecting step is based on at least one predefined characteristic of said at least said first of said plurality of intermediate transmission stations.

89. (New Claim) The method of claim 87, wherein said selecting step is based on said schedule, wherein said schedule is at least partially based on at least one predetermined characteristic of said at least said first of said plurality of intermediate transmission stations, and wherein said method further comprises the step of storing, in said at least one programming origination station, said at least one predetermined characteristic of said at least said first of said plurality of intermediate transmission stations.

90. (New Claim) The method of claim 87, wherein said subset of said plurality of programming units includes all of said stored plurality of programming units.

91. (New Claim) The method of claim 63, wherein said plurality of programming units are received in said at least one programming origination station, said method further comprising the steps of:

communicating at least one programming signal to said plurality of intermediate transmission stations, said at least one programming signal including said plurality of programming units; and

communicating a plurality of instruct signals to said plurality of intermediate transmission stations, said plurality of instruct signals operating at said plurality of intermediate transmission stations (1) to store said at least said first of said plurality programming units and (2) to retransmit a second of said plurality of programming units immediately upon receipt of said second of said plurality of said programming units.

92. (New Claim) The method of claim 91, wherein said second of said plurality of programming units includes video, wherein said at least said first of said programming units includes one or more of audio and data, and wherein said at least said first of said plurality of intermediate transmission stations is adapted to delay communication of said one or more of said audio and data.

93. ~~(New Claim)~~ The method of claim 91, wherein at least one of (1) said at least said first of said plurality of intermediate transmission stations and (2) said at least one of said plurality of subscriber stations assembles processor instructions based on code contained in said plurality of programming units, said method further comprises the step of transmitting one or more of assembly language and higher language code in said plurality of programming units.

94. (New Claim) The method of claim 91, wherein said plurality of intermediate transmission stations include a plurality of processors, said method further comprises the steps of:

programming a first of said plurality of processors to communicate at least one of said plurality of instruct signals to a second of said plurality of processors; and

programming said second processor to control at least one of said plurality of intermediate transmission stations based on said at least one of said plurality of instruct signals.

G1 Cont.

95. (New Claim) The method of claim 91, wherein at least one of said plurality of intermediate transmission stations is adapted to communicate to processor information detected in a throughput of a broadcast or cablecast transmission, said at least one programming signal and said plurality of instruct signals being communicated in said throughput, said method further comprising the steps of:

processing a control instruction which operates said at least one of at said plurality of intermediate transmission stations to increase throughput capacity by (i) lengthening the time devoted to said throughput, (ii) increasing a portion of said transmission devoted to said throughput at a given time, or (iii) using transmission location outside said transmission.

96. (New Claim) A method of communicating programming to subscribers in a network, said network including at least one programming origination station, a plurality of intermediate transmission stations, and a plurality of subscriber stations, said plurality of intermediate transmission stations receiving programming from said at least one programming origination station and retransmitting said received programming, said method comprising the steps of:

(1) receiving a programming signal;

(2) receiving a schedule signal indicating at least one scheduled time for transmitting at least one of a plurality of programming units from at least one of said plurality of intermediate transmission stations, said plurality of programming units stored in said network and organized for transmission, said schedule signal effective to achieve at least one of:

(a) effecting said at least one of said plurality of intermediate transmission stations to transmit said at least one of said programming units to at least one of said subscriber stations at said scheduled time; and

(b) effecting a receiver station to transmit said at least one of said programming units to at least one of said subscriber stations at said scheduled time; and

(3) transmitting said programming signal and said schedule signal.

97. (New Claim) The method of claim 96, wherein said programming signal includes said plurality of programming units, wherein said schedule signal includes a schedule indicating said at least one scheduled time, and wherein said method further comprises the steps of:

selecting, in said at least one of said plurality of intermediate transmission stations, a subset of said programming units based on at least one predetermined characteristic of said at least one of said plurality of intermediate transmission stations;

organizing, in said at least one of said plurality of intermediate transmission stations, each of said plurality of programming units in said selected subset based on said schedule; and